

REMARKS

The specification has been amended at page 17, lines 3-26 to set forth a list of promoters found in Zuo and Chua (2000), Zuo et al. (2000) and Aoyama and Chua (1997), which had been incorporated by reference in the application (see page 17, lines 19-20). A copy of each of these references was submitted with the Information Disclosure Statement filed on 18 December 2002. A Verified Statement concerning this amendatory material accompanies this Amendment.

Claims 25-29 and 38-44 have been amended to specify that the seed, seedling or plant is transgenic.

Claim 25 has also been amended to specify that the promoter is heterologous and to delete the Markush group of promoters. Support for this language can be found at page 15, lines 10-14 in the example of one constitutive promoter and at page 17, lines 19-20 which refers to references describing heterologous inducible promoters. The latter passage has been amended to set forth a list of promoters found in Zuo and Chua (2000), Zuo et al. (2000) and Aoyama and Chua (1997), which had been incorporated by reference in the application (see page 17, lines 19-20). All of these promoters identified in the specification are heterologous promoters, i.e., promoters that are heterologous to the nucleic acid sequence encoding ABI5. Although the specification does not contain an *in haec verba* description of heterologous promoter, the specification does contain an equivalent description of the claimed invention by listing eight different heterologous promoters. Such a description is sufficient. *See, Lockwood v. American Airlines Inc.*, 107 F.3d 1565, 41 USPQ2d 1961; *Eiselstein v. Frank*, 52 F.3d 1035, 34 USPQ2d 1467 (Fed. Cir. 1995).

Claims 28, 29 and 39-44 have also been amended to change “untransformed” to “non-transgenic” to be consistent with the language of the claims.

It is submitted that none of these amendments constitute new matter, and their entry is requested.

The Examiner rejected claims 28-29 and 39-44 under 35 U.S.C. § 112, second paragraph for being indefinite on the basis of the “untransformed” language and the dependencies of claims 43 and 44. The claims have been amended to change “untransformed” to “non-transgenic” which conforms to amendments made to the claims in response to the 35 U.S.C. § 101 rejection and to correct the

dependencies of claims 43 and 44. It is submitted that these amendments obviate this rejection, and its withdrawal is requested.

The Examiner rejected claims 25-29 and 38-42 under 35 U.S.C. § 101 for being directed to non-statutory subject matter. The claims have been amended to specify that the seed, seedling or plant are transgenic and contain a polynucleotide comprising a heterologous promoter, i.e., non-native promoter, operatively linked to a nucleic acid sequence encoding ABI5. It is submitted that these amendments obviate this rejection, and its withdrawal is requested.

The Examiner rejected claims 25, 27-29, 38 and 41-42 under 35 U.S.C. §102(a) as being anticipated by Finkelstein et al. (*The Plant Cell* 12:599-609, 2000). It is submitted that the amendment of the claims to include a heterologous promoter obviate this rejection. Withdrawal of this rejection is requested.

The Examiner rejected claims 25, 27-29, 38 and 41-42 under 35 U.S.C. §102(a) as being anticipated by Lopez-Molina et al. (*Plant Cell Physiol* 41:541-547, 2000). It is submitted that the amendment of the claims to include a heterologous promoter obviate this rejection. Withdrawal of this rejection is requested.

The Examiner rejected claims 26, 39 and 40 under 35 U.S.C. §103(a) as being obvious over Finkelstein et al. or Lopez-Molina et al. in view of Kay et al. (*Science* 236:1299-1302, 1987). In essence, the Examiner contends that it would have been obvious to substitute the cauliflower mosaic virus 35S promoter of Kay et al. for the native promoter of Finkelstein et al. or Lopez-Molina et al. in order to produce recombinant ABI5 protein in a quantity sufficient to characterize the protein and to characterize its biological role in plants. It is submitted that this rejection is improper.

To render a claim obvious under 35 U.S.C. §103(a), two requirements must be met. First, the cited references when combined must teach or suggest all of the features of the claimed invention. Second, there must have been some teaching or suggestion in existence at the time the invention was made to combine the cited references. Unless both of these requirements are met, a claim cannot be regarded as being obvious over a combination of the cited references. *See* MPEP § 2143; *In re Rouffet*, 47 U.S.P.Q.2d 1453 (1998); and *In re Fine*, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

"When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references." *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1456 (Fed. Cir. 1998); see also MPEP § 2143.01. Virtually all inventions are combinations of old elements. *See In re Rouffet*, 47 U.S.P.Q.2d at 1457. If identification of each claimed element in the prior art were sufficient to negate patentability, the Examiner could use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. *See Id.* To prevent the use of hindsight based on the teachings of the patent application, the Examiner must show a motivation to combine the references in the manner suggested. *See Id.* at 1457-1458.

In the Office Action, the Examiner set forth two alleged motivations for a skilled artisan to make the alleged combination. The first alleged motivation is that a skilled artisan would have combined the 35S promoter with the ABI5 coding sequence in order to produce the ABI protein in a quantity sufficient to characterize it. This first alleged motivation is not set forth in any of the prior art cited by the Examiner. In fact, it is submitted that if it was desired to produce the protein in a quantity to characterize the protein, a skilled artisan would not use plants to produce the desired quantities of protein. The second alleged motivation is that a skilled artisan would have combined the 35S promoter with the ABI5 coding sequence in order to determine the biological role of the ABI5 protein. As with the first alleged motivation, this second alleged motivation is not set forth in any of the prior art references. In fact, as a result of previous studies and the identification of ABI5 mutants, a biological role for the ABI5 protein was known and described in the primary references. Furthermore, the transgenic plants of the primary references containing the native promoter operatively linked to the ABI5 coding sequence were prepared to confirm that the mutant phenotype was due to the mutant gene and to confirm the location of the gene for cloning and analysis. Thus, there is no motivation in either of the primary references to combine the 35S promoter with the ABI5 coding sequence to study the biological role of the ABI5 protein *in planta*.

As the Federal Circuit stated almost 20 years ago, "[c]are must be taken to avoid hindsight reconstruction by using 'the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claim in suit.'"

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Grain Processing Corporation v. American Maize Products, 840 F.2d 902, 907, 5 U.S.P.Q.2d 1788, 1792 (Fed. Cir. 1983). As established above, the prior art does not in fact contain any motivation to make the precise combination and arrangement of elements that is recited in the present claims, and "[t]o draw on hindsight knowledge of the patented invention, when the prior art does not contain or suggest that knowledge, is to use the invention as a template for its own reconstruction -- an illogical and inappropriate process by which to determine patentability." *Sensonics, Inc. v. Aerosonic Corp.*, 38 U.S.P.Q.2d 1551, 1554 (Fed. Cir. 1996); see also *Heidelberger Druckmaschinen AG v. Hantscho Commercial Products, Inc.*, 30 U.S.P.Q. 2d 1377, 1380 (Fed. Cir. 1993).

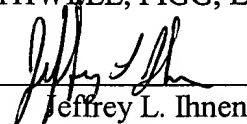
Since there is no motivation to combine the references, it is submitted that the Examiner's argument in this rejection, at best, amounts to an "obvious to try" analysis. It is well established, however, that "obvious to try" is not the standard under 35 U.S.C. §103. *In re O'Farrell*, 7 U.S.P.Q.2d 1673 (Fed. Cir. 1988).

In view of the above amendments and remarks, it is submitted that the present claims are not obvious from the cited references. Withdrawal of this rejection is requested.

In view of the above amendments and remarks, it is submitted that the present claims satisfy the requirements of the patent statutes and are patentable over the prior art. Reconsideration and early notice of allowance are requested. The Examiner is invited to telephone the undersigned in order to expedite prosecution of the present application.

Respectfully submitted,
ROTHWELL, FIGG, ERNST & MANBECK, p.c.

By


Jeffrey L. Ihnen

Registration No. 28,957
Attorney for Applicant
1425 K Street, N.W., Suite 800
Washington, D.C. 20005
phone: 202-783-6040
fax: 202-783-6031